Clarion®

Owner's & Installation manual
Mode d'emploi et manuel d'installation
Manual de instrucciones y de instalación

XC1410

XC AMPLIFIER
AMPLIFICATEUR XC
AMPLIFICADOR XC

English

Owner's Manual

ABOUT THE MANUAL AND WARRANTY

This manual describes the basic requirements to install the Clarion XC1410 amplifier. The installation of this amplifier can be quite complex to install. If you do not posses the necessary knowledge and tools to perform this installation please contact your local Clarion Audio dealer. Keep all instructions and sales receipt for future reference and warranty information.

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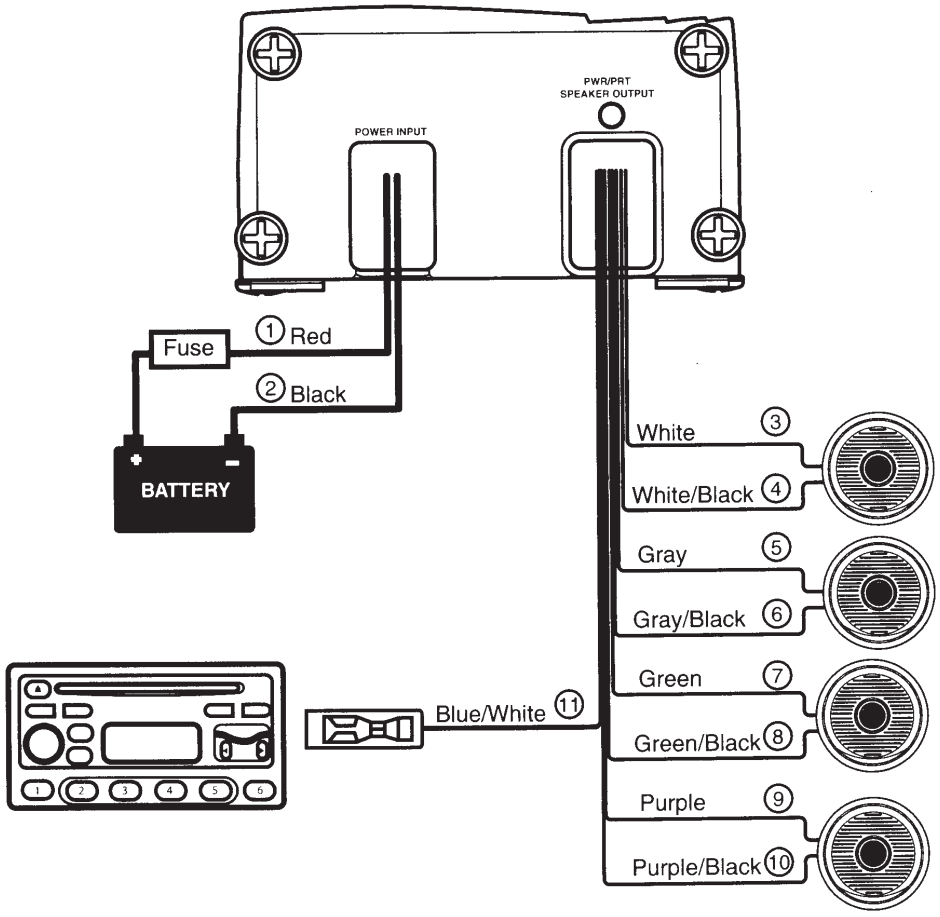
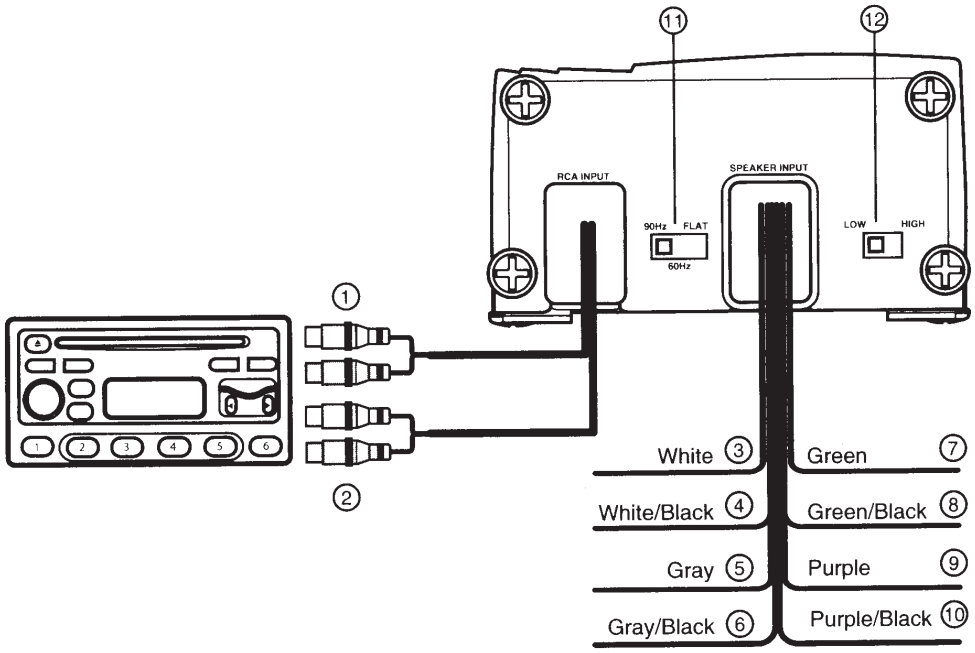
CONNECTION FOR POWER AND SPEAKERS



① **Red Wire:** to +12V Battery terminal. Be sure to properly fuse within 18" of the battery.
② **Black Wire:** to chassis ground. Properly mount to clean bare metal of the vehicle. Please keep wire length as short as possible.
③ **White:** to Front Left Speaker (+)
④ **White/Black:** to Front Left Speaker (-)
⑤ **Gray**: to Front Right Speaker (+)
⑥ **Gray/Black:** to Front Right Speaker (-)
⑦ **Green:** to Rear Left Speaker (+)
⑧ **Green/Black:** to Rear Left Speaker (-)
⑨ **Purple**: to Rear Right Speaker (+)
⑩ **Purple/Black**: to Rear Right Speaker (-)
⑪ **Blue/White:**
Option 1: Connect to Aftermarket Source Unit, Remote Turn On Wire +12V (Blue/White)
Option 2: If Remote Turn-On Wire is not present, please connect to (Switched Accessory +12V)

INPUT CONNECTIONS AND AUDIO CONTROLS



LOW LEVEL RCA INPUTS ONLY

NOTE: Each RCA input corresponds to each output.
① Front Red/White RCA input: Connects to Source Units with RCA outputs.
② Rear Red/White RCA input: Connects to Source Units with RCA outputs.

HIGH LEVEL SPEAKER INPUTS ONLY

③ **White** wire - to Source Unit Front Left **(+)**
④ **White/Black** wire - to Source Unit Front Left **(-)**
⑤ **Gray** wire - to Source Unit Front Right **(+)**
⑥ **Gray/Black** wire - to Source Unit Front Right **(-)**
⑦ **Green** wire - to Source Unit Rear Left **(+)**
⑧ **Green/Black** wire - to Source Unit Rear Left **(-)**
⑨ **Purple** wire - to Source Unit Rear Right **(+)**
⑩ **Purple/Black** wire - to Source Unit Rear Right **(-)**
⑪ Selectable Crossover (60Hz, 90Hz, Flat)
⑫ Selectable Input Gain Control: LOW = when using RCA inputs
HIGH = when using HIGH LEVEL SPEAKER inputs

INSTALLATION

This section suggests Mounting and Wiring Precautions for installing the Clarion XC1410. If you do not posses the necessary tools and installation experience, do not attempt to install these amplifiers. Instead, contact your local Clarion Audio dealer to perform the installation.

MOUNTING PRECAUTIONS

Prior to mounting the amplifier, make sure it is safe to mount the amplifier in desired location. Failure to do so can result in serious damage to the vehicle.
Additional precautions and suggestions:

1. For the most efficient cooling, mount the amplifier so cool air runs along the length of the heat sink, rather than across them. To increase air movement and circulation, a cooling fan can be installed.
2. Mount the amplifier on a rigid surface; avoid mounting to subwoofer enclosures or areas prone to vibration.
3. Prior to drilling and mounting, make sure the proposed mounting holes will not cut into the fuel tank, fuel lines, brake lines, electrical wiring, or the body of vehicle or boat.

WIRING PRECAUTIONS

Read all of the wiring precautions prior to making any connections. If you are unsure and/or don't have the necessary installation hardware, contact your local Clarion audio dealer to perform the installation.

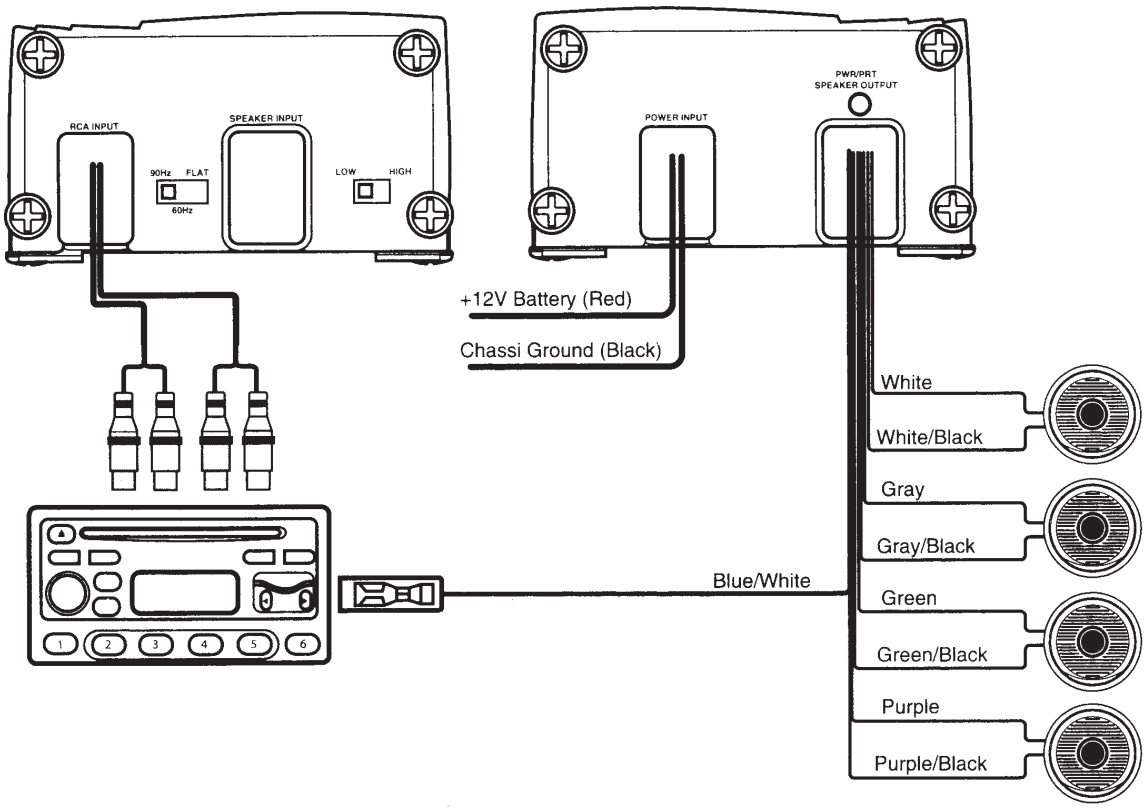
1. Before you begin the installation, make sure the vehicle is not running and is in the OFF position.
2. Disconnect the negative (-) lead of the battery (or batteries) before making any power connections.
3. When making connections, be sure that each connection is clean and secure. Insulate final connections with electrical tape or heat shrink tubing. Failure to do so may damage your equipment.
4. A good ground is critical for the performance of the amplifier. A ground wire should be run directly from the battery to the amplifier (marine application). Use black insulated 10-gauge or larger wire for the amplifier's ground (-) power lead.
5. Add a fuse holder and fuse at the positive (+) terminal of the battery.
   The fuse rating should equal the total current consumption at full output of the amplifier(s). Use red insulated 10-gauge or larger wire for the amplifier's positive (+) power lead. Do not install the fuse until the complete installation has been performed.
6. When replacing the amplifier's fuse, always use one having the same amperage rating. Substituting a higher rated fuse or a slow-blow type can result in serious damage to the amplifier.
7. When creating passage holes for power cables, RCA's cables, and speaker wires, use grommets to eliminate any sharp edges created during drilling. This will protect the wire from being damaged and prevent a short circuit.
8. Extra cable can cause signal loss and act as an "antenna" for noise. Use only high-quality RCA cables that are no longer than necessary.
9. In multiple amplifier systems, it is recommended to use a relay on the remote turn-on lead of the radio.

WIRING AND APPLICATIONS

The Clarion XC1410 4-channel audio amplifier can be used in a variety of system applications. Here are a few examples to help plan your own installation.

Option 1

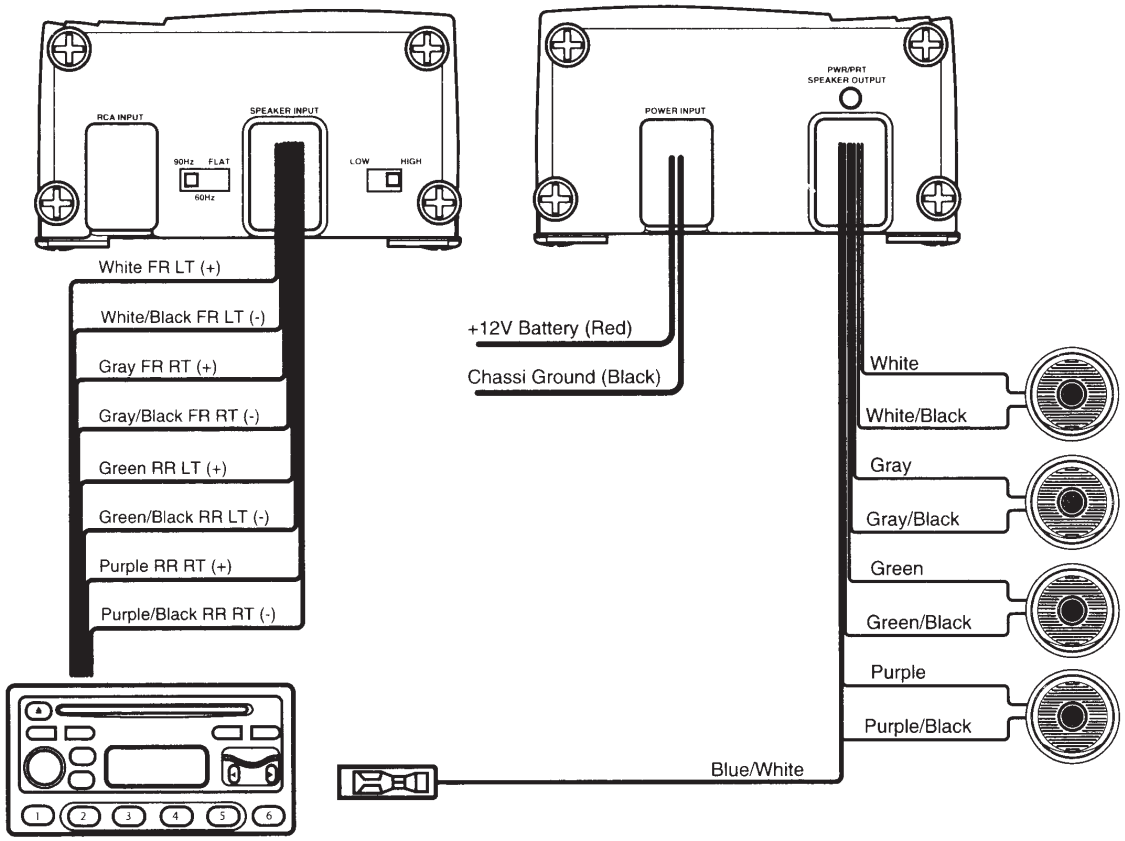
4-Channel Full Range Stereo System using aftermarket headunit with (low level) RCA's



In this application, the XC1410 is used as a 4-channel amplifier to drive four full range speakers in stereo. This configuration is for headunits with RCA outputs.

Option 2

4-Channel Full Range stereo system using head unit with (high level) speaker input



In this application, the XC1410 is used as a 4-channel amplifier to drive four full range speakers in stereo. This configuration is for headunits with High Level Speaker Outputs. Please note: this configuration is also for Factory OEM headunits.

SETTING THE GAIN

The Clarion XC1410 features a selectable Input Gain Control (High, Low).
Using the Gain Control Switch, select the desired mode:

LOW = when using RCA inputs
HIGH = when using HIGH LEVEL SPEAKER inputs

SETTING THE CROSSOVER

The Clarion XC1410 features a selectable crossover (60Hz, 90Hz, Flat).
Using the Crossover Mode Switch, select the desired mode:

60Hz High Pass
90Hz High Pass
Flat = Crossover OFF for FULL RANGE

FINAL SYSTEM CHECK

1. Power on the source unit. Slowly increase the Volume Control and listen to the audio.
2. Check "Source" Balance (Left and Right) and Fader (Front and Rear) to ensure proper installation.
3. Increase the volume and verify that the amplifier reproduces audio (at full frequencies) without distortion. If you hear distortion, check the connections and verify that the Input Gain Control is set properly.

TROUBLESHOOTING

Problem

No Audio. Amplifier not powering on. (LED turned off)

Solution

1. Remote turn-on voltage. Check remote connections at amplifier and source unit.
2. Blown amplifier fuse. Replace with new fuse (same rating).
3. Power wires not connected. Check power and ground wiring at amplifier and at battery.
4. Speaker leads shorted. Check speaker continuity to ground, it should not show common ground.
5. Speakers not connected or are blown. Check speaker connections at amplifier, measure coil impedance.

Problem

Distorted audio.

Solution

Input Gain is not set properly, or damaged speaker cones. Review Setting Gain; inspect each speaker. (i.e. check connection, speaker impedance, etc.)

Problem

Audio lacks punch.

Solution

Speakers wired incorrectly, which causes cancellation of bass frequencies.
Check polarity of wires from amplifier to each speaker as defined by the system design.

Problem

Amplifier fuse keeps blowing.

Solution

Incorrect wiring or short circuit. Review installation and check all wiring connections.

PRODUCT SPECIFICATIONS

Frequency Response	20Hz ~ 20kHz
Selectable Crossover Frequency	60Hz (HP), 90Hz (HP), Flat (Off)
Max. Power Output	300W
RMS Power Output	@4Ω 50W x 4 @0.1% THD
RMS Power Output	@2Ω 75W x 4 @0.1% THD
Fuse	25A
Dimensions	180mm (W) x 35mm (H) x 70mm (D) 7-1/8in (W) x 1-3/8in (H) x 2-3/4in (D)

Power Output: 50W x 4RMS [4Ω @ ≤14.4 0.1% THD+N

Signal to Noise Ratio: 80dB (Reference: 1W into 4Ω)

Clarion Corporation of America

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Français

Clarion

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10. Les lois de l'état de la Californie contrôlent totalement cette garantie limitée, son interprétation et sa mise en exécution.
11. Si vous éprouvez des problèmes de performance du produit pendant la période de garantie, veuillez communiquer avec Clarion ou visitez notre site Web à l'adresse ci-dessous afin d'obtenir une résolution de tout problème relié aux produits Clarion.

Aux États-Unis: Clarion Corporation of America
Attn:Customer Service Manager
6200 Gateway Drive Cypress, CA 90630
1-800-GO-CLARION **www.clarion.com**

Au In Canada: Clarion Canada Inc.
Centre de Service et Garantie
2239 Winston Park Drive Oakville, Ontario L6H 5R1
(905)829-4600 **www.clarion.com**

English

CLARION 1 YEAR LIMITED WARRANTY

For USA and Canada only

This Clarion product purchased from an authorized Clarion dealer are warranted against all defects in materials and workmanship for a period of **one (1) year** from the date of original purchase, when purchased from **AND** installed by an authorized Clarion dealer.

All Clarion cables, wires and other accessories if purchased from an authorized Clarion dealer are warranted against all defects in materials and workmanship for ninety (90) days from the date of original purchase.

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2. This Limited Warranty will become void if service performed by anyone other than an approved Clarion Warranty Service Center results in damage to the product.
3. This Limited Warranty does not apply to any product which has been subject to misuse, neglect or accident, or which has had the serial number altered, defaced or removed, or which has been connected, installed, adjusted or repaired, other than in accordance with the instructions furnished by Clarion.
4. This Limited Warranty does not cover car static or other electrical interferences, tape head or laser pick-up cleaning or adjustments, or labor costs for the removal or reinstallation of the unit for repair.
5. The sole responsibility of Clarion under this Limited Warranty shall be limited to the repair of the product or replacement of the product, at the sole discretion of Clarion.
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11. Should you have any difficulties with the performance of this product during the warranty period, please call Clarion or visit our web site for a listing of Authorized Warranty Service Centers in your area. You may also contact Clarion Customer Service at the address listed below for any service help you may need with Clarion products.

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Attn:Customer Service Manager
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